

AMENDMENTS TO THE CLAIMS

1. (currently amended) An individual, end-sealed packaging bag formed from a sheet of a heat-shrinkable film, said sheet of a heat-shrinkable film having a first side, an opposing second side, an inner surface and an outer surface, said bag comprising:

a first seal connecting said first side to said second side and defining a tube member having a first bag wall, a second bag wall, opposing first and second bag edges, an end and an open mouth opposite said end;

a second seal provided through said first and second bag walls, said second seal extending laterally across the width of both said first and second bag walls at a position proximate said end, whereby an empty product receiving chamber is defined by said first bag wall, said second bag wall, said second seal and said open mouth; and,

wherein said first seal comprises a peelable seal and is selected from the group consisting of a lap seal, a butt-seal tape and a seal strip; ~~and wherein said sheet of heat-shrinkable film comprises a biaxially stretched film having a shrinkage value of at least 20% shrink at 90°C in at least one direction; and wherein said sheet of heat-shrinkable film~~ comprises a multilayer film which includes a peelable system adapted to peel at an interior layer of said film.

2. (canceled)

3. (previously presented) The bag according to claim 1, wherein said butt-seal tape has a first border and a second border, a first heat seal joining said first border to said first side, and a second heat seal joining said second border to said second side.

4. (original) The bag according to claim 3, wherein said first and second heat seals are peelable.

5. (original) The bag according to claim 4, wherein said butt-seal tape comprises a butt-seal film including a peelable system.

6. (canceled)

7. (original) The bag according to claim 3, wherein said butt-seal tape includes a pull flap.

8. (original) The bag according to claim 3, wherein said first border is heat sealed to the inner surface of said first side and said second border is heat sealed to the inner surface of said second side.

9. (original) The bag according to claim 8, wherein at least one of said first and second sides extends outwardly to form a pull flap.

10. (previously presented) The bag according to claim 1, wherein said seal strip comprises a strip film having a first margin, a second margin, an inside surface and an outward surface; a first heat seal joining said outward surface of said first margin to said inner surface of said first side; and a second heat seal joining said inside surface of said strip film to said outer surface of said second side.

11. (original) The bag according to claim 10, wherein said second heat seal is a peelable seal.

12. (original) The bag according to claim 10, wherein said first heat seal is a peelable seal.

13. (original) The bag according to claim 10, wherein said strip film comprises a peelable system.

14. (canceled)

15. (original) The bag according to claim 10, wherein said strip film includes a pull flap.

16. (currently amended) The bag according to claim 1, wherein said multilayer film comprises a multilayer barrier film.

17. (original) The bag according to claim 16, wherein said multilayer barrier film comprises:

- (a) an inner heat sealing layer;
- (b) a barrier layer;
- (c) a core layer;
- (d) a tie layer; and,
- (e) an outer heat sealing layer.

18. (previously presented) The bag according to claim 1, wherein said first seal has a peelable seal strength of less than 2 kilograms for a one inch strip.

19. (previously presented) The bag according to claim 1, wherein said first seal has a peelable seal strength of less than 1.5 kilograms for a one inch strip.

20. (canceled)

21. (original) The bag according to claim 17, wherein said outer heat sealing layer forms the outer surface of said bag.

22. (original) The bag according to claim 17, wherein said tie layer is permanently bonded to said core layer and peelably bonded to said outer heat sealing layer.

23. (original) The bag according to claim 17, wherein said tie layer is permanently bonded to said outer heat sealing layer and peelably bonded to said core layer.

24. (original) The bag according to claim 17, wherein said tie layer comprises a blend of polybutylene and at least one other constituent.

25. (original) The bag according to claim 24, wherein said at least one other constituent comprises polyethylene.

26. (original) The bag according to claim 17, wherein said outer heat sealing layer comprises polyethylene.

27. (original) The bag according to claim 17, wherein said core layer comprises a blend of polyethylene and an ethylene-vinyl acetate copolymer.

28. (original) The bag according to claim 17, wherein said barrier layer is selected from the group consisting of vinylidene chloride copolymers, ethylene vinyl alcohol copolymers, polyacrylonitriles and polyamides.

29. (original) The bag according to claim 28, wherein said barrier layer comprises a vinylidene chloride copolymer.

30. (original) The bag according to claim 17, wherein said inner heat sealing layer comprises a blend of polyethylene and ethylene-vinyl acetate copolymer.

31. (original) The bag according to claim 17, wherein said tie layer comprises a blend of polybutylene and at least one other constituent; said outer heat sealing layer

comprises polyethylene; said core layer comprises a blend of polyethylene and an ethylene-vinyl acetate copolymer; said barrier layer comprises a vinylidene chloride copolymer; and said inner heat sealing layer comprises a blend of polyethylene and ethylene-vinyl acetate copolymer.

32. (original) The bag according to claim 31, wherein said at least one other constituent comprises polyethylene and said barrier layer comprises a blend of vinylidene chloride-methyl acrylate copolymer and vinylidene chloride-vinyl chloride copolymer.

33. (previously presented) The bag, according to claim 17, wherein said inner heat sealing layer comprises less than 50%; said barrier layer comprises less than about 20%; said core layer comprises less than 28%; said tie layer comprises less than about 15%; and said outer heat sealing layer comprises less than 15%; based on the total thickness of said film.

34. (original) The bag according to claim 1, wherein said second seal is nonpeelable.

35. (original) The bag according to claim 1, wherein said sheet of heat-shrinkable film has a thickness from about 1.25 mil to about 8.0 mil.

36. (previously presented) The bag according to claim 35, wherein said sheet of heat-shrinkable film has a thickness from about 1.75 mil to about 3.0 mil.

37. (canceled)

38. (previously presented) The bag according to claim 1, wherein said shrinkage value is in the machine direction.

39. (previously presented) The bag according to claim 1, wherein said shrinkage value is in the transverse direction.

40. (previously presented) The bag according to claim 1, wherein said shrinkage value is in both the machine direction and the transverse direction.

41. (original) The bag according to claim 17, wherein said first seal comprises a lap seal and said inner heat sealing layer forms the inside surface of the bag.

42. (original) The bag according to claim 1, wherein said first seal comprises a lap seal and said first side includes an unsealed portion extending outwardly beyond said first seal.

43. (currently amended) An end-sealed packaging bag formed from a sheet of a heat-shrinkable film, said film having a first side and an opposing second side, said bag comprising:

a first seal bonding said first side and said second side along the lengths thereof thereby defining a tube member having a first bag wall, a second bag wall, opposing first and second bag edges, an end and an open mouth, said first seal comprising a lap seal and being peelable;

a second seal provided through said first and second walls, said second seal extending laterally across the width of both said first and second walls at a position approximate said end and said second seal being nonpeelable; and,

a product receiving chamber defined by said first wall, said second wall, said second seal and said open mouth;

~~and wherein said sheet of heat-shrinkable film comprises a biaxially stretched film having a shrinkage value of at least 20% shrink at 90°C in at least one direction; and wherein said sheet of heat-shrinkable film comprises a multilayer film which includes a peelable system adapted to peel at an interior layer of said film.~~

44. (canceled)

45. (canceled)

46. (canceled)

47. (canceled)

48. (canceled)

49. (canceled)

50. (currently amended) An end-sealed packaging bag formed from a sheet of a heat-shrinkable film, said film having a first side, an opposing second side, an inner surface and an outer surface and said film comprising a multilayer barrier film, said bag comprising:

a first seal joining said first side and said second side along the lengths thereof, wherein such first seal is continuous and defines a tube member having a first bag wall, a second bag wall, opposing first and second bag edges, an end and an open mouth, said first seal comprising a lap seal and being peelable and having a peelable seal strength of less than 2 kilograms for a one inch strip;

a second seal provided through said first and second walls, said second seal extending laterally across the width of both said first and second walls at a position approximate said end and said second seal having a seal strength of greater than 3 kilograms per inch; and,

a product receiving chamber defined by said first wall, said second wall, said second seal and said open mouth;

~~and~~ wherein said sheet of heat-shrinkable film comprises a biaxially stretched film having a shrinkage value of at least 20% shrink at 90°C in at least one direction; and wherein said sheet of heat-shrinkable film includes a peelable system adapted to peel at an interior layer of said film.

51. (canceled)

52. (previously presented) The bag according to claim 50, wherein said multilayer barrier film comprises

- (a) an inner heat sealing layer;
- (b) a barrier layer adjacent said inner heat sealing layer;
- (c) a core layer adjacent said barrier layer;
- (d) a tie layer adjacent said core layer; and,
- (e) an outer heat sealing layer adjacent said tie layer.

53. (original) The bag according to claim 52, wherein said tie layer comprises a blend of polybutylene and at least one other constituent.

54. (previously presented) The bag according to claim 53, wherein said at least one other constituent comprises polyethylene.

55. (original) The bag according to claim 52, wherein said outer heat sealing layer comprises polyethylene.

56. (original) The bag according to claim 52, wherein said core layer comprises a blend of polyethylene and an ethylene-vinyl acetate copolymer.

57. (original) The bag according to claim 52, wherein said barrier layer is selected from the group consisting of vinylidene chloride copolymers, ethylene vinyl alcohol copolymers, polyacrylonitriles and polyamides.

58. (original) The bag according to claim 57, wherein said barrier layer comprises a vinylidene chloride copolymer.

59. (original) The bag according to claim 52, wherein said inner heat sealing layer comprises a blend of polyethylene and ethylene-vinyl acetate copolymer.

60. (original) The bag according to claim 52, wherein said tie layer comprises a blend of polybutylene and at least one other constituent; said outer heat sealing layer comprises polyethylene; said core layer comprises a blend of polyethylene and an ethylene-vinyl acetate copolymer; said barrier layer comprises a vinylidene chloride copolymer; and said inner heat sealing layer comprises a blend of polyethylene and ethylene-vinyl acetate copolymer.

61. (original) The bag according to claim 60, wherein said at least one other constituent comprises polyethylene and said barrier layer comprises a blend of vinylidene chloride-methyl acrylate copolymer and vinylidene chloride-vinyl chloride copolymer.

62. (previously presented) The bag according to claim 52, wherein said inner heat sealing layer comprises less than 50%; said barrier layer comprises less than about 20%; said core layer comprises less than 28%; said tie layer comprises less than about 15%; and said outer heat sealing layer comprises less than 15%; based on the total thickness of said film.

63. (canceled)

64. (previously presented) The bag according to claim 1, wherein said first seal has a seal strength of greater than 3 kilograms per inch.

65. (previously presented) The bag according to claim 1, wherein said first seal has a seal strength of greater than 6 kilograms per inch.

66. (previously presented) The bag according to claim 1, wherein said second seal has a seal strength of greater than 3 kilograms per inch.

67. (original) The bag according to claim 52, wherein said outer heat sealing layer forms the outer surface of said bag.

68. (original) The bag according to claim 52, wherein said tie layer is permanently bonded to said core layer and peelably bonded to said outer heat sealing layer.

69. (original) The bag according to claim 52, wherein said tie layer is permanently bonded to said outer heat sealing layer and peelably bonded to said core layer.

70. (previously presented) The bag according to claim 1, wherein said first seal connects said first side to said second side along the lengths thereof and is continuous.

71. (new) The bag according to claim 1, wherein said sheet of heat-shrinkable film comprises an outer layer, an inner heat seal layer and a tie layer disposed between said outer layer and said inner heat seal layer, and said film is adapted to peel at a location in said tie layer, a location between said tie layer and said outer layer, a location between said tie layer and said inner heat seal layer, or a combination of said locations.

72. (new) The bag according to claim 43, wherein said sheet of heat-shrinkable film comprises an outer layer, an inner heat seal layer and a tie layer disposed between said outer layer and said inner heat seal layer, and said film is adapted to peel at a location in said tie layer, a location between said tie layer and said outer layer, a location between said tie layer and said inner heat seal layer, or a combination of said locations.

73. (new) The bag according to claim 50, wherein said sheet of heat-shrinkable film comprises an outer layer, an inner heat seal layer and a tie layer disposed between said outer layer and said inner heat seal layer, and said film is adapted to peel at a location in said tie layer, a location between said tie layer and said outer layer, a location between said tie layer and said inner heat seal layer, or a combination of said locations.